REMARKS

The Office Action mailed December 17, 2002, has been reviewed and the comments of the Examiner carefully considered. Claims 29, 30 and 33-44 have been canceled. New claim 57 has been added. Support for claim 57 is found in the specification at page 12, line 26 - page 13, line 16, and FIG. 2. Entry of these amendments is respectfully requested. Attached herewith is a corrected FIG. 1 that designates FIG. 1 as "prior art." It is submitted that the drawings are now acceptable.

Pending claims 45-56 stand rejected under § 112, second paragraph, for alleged indefiniteness for use of the phrase "consisting essentially of" in connection with a Markush group. MPEP § 2173.05(h) indicates that Markush groups may be recited with language other than "group consisting of." Thus, there is no requirement that Markush language must be "closed ended" as asserted by the Examiner. In addition, the phrase "consisting essentially of" is acceptable, and commonly used, terminology for a Markush group. An Internet search of the USPTO patent database for the phrase "group consisting essentially of" in the claims field for patents issued from 1996-current produced over 700 hits. Attached as Exhibits A, B, and C are three recently issued patents that contain "consisting essentially of" in the context of a Markush group (6,225,364 – claim 1; 6,221,759 – claims 14, 15, 29, 45 and 46; 6,224,926 – claims 3, 4, 7 and 17). Consequently, the § 112, second paragraph, rejection should be reconsidered and withdrawn.

Claims 31, 32, 45, 46, 51, and 52 stand rejected under § 103 over the admitted prior art combined with Freemantle. The Examiner recognizes that the admitted prior art apparatus does not include an ionic liquid source. Freemantle is relied upon for teaching that it would have been obvious to modify the admitted prior art apparatus to include an ionic liquid source. It is respectfully submitted that a case of *prima facie* obviousness has not been established since there would have been no motivation to combine the admitted prior art and Freemantle.

Freemantle does mention that ionic liquids can act as solvents, but focuses on possible environmental and other benefits associated with the use of ionic liquids in conjunction with catalyzed reactions (see page 33, third column to the end of the article). There is nothing in Freemantle suggesting that the properties of ionic liquids may be useful in a vapor deposition

..l less in the field of semiconductor processing. Accordingly, Freemantle does not ..ide a basis for suggesting the purported modification of the admitted prior art apparatus.

The Examiner takes the position that the claimed invention would have been obvious because of the advantages of ionic liquids as disclosed in Freemantle. In hindsight, the benefits of using ionic liquids in vapor deposition are apparent. But it is the applicants that first made the connection between the properties of the ionic liquids and the advantages such properties offered to vapor deposition. Viewing the matter another way, it is the present specification and not the prior art disclosures that first describe how certain properties of ionic liquids could be utilized in a vapor deposition process.

Claims 47 and 53 have been rejected under § 103 over the admitted prior art combined with Freemantle and Blomgren et al. The Examiner relies upon Blomgren et al. as teaching an ionic liquid meeting the formula recited in claims 47 and 53. Blomgren et al. discloses a molten composition comprising a mixture of an inorganic halide salt and a quaternary alkyl phosphonium halide salt. The molten composition is said to be useful as an electrolyte (see, e.g, the Abstract). Of course, there is nothing in the admitted prior art or Freemantle calling for an electrolyte. Accordingly, there is nothing in the cited prior that would have motivated a skilled artisan to select an electrolyte as an ionic liquid source for a vapor deposition apparatus.

Claims 48 and 54 have been rejected under § 103 over the admitted prior art combined with Freemantle and Jones et al. The Examiner relies upon Jones et al. as teaching an ionic liquid meeting the formula recited in claims 48 and 54. Jones et al. discloses a molten composition comprising a mixture of metal halide and a ternary alkyl sulfonium salt. The molten composition is said to be useful as an electrolyte (see, e.g., the Abstract). The Jones et al. patent suffers from the same fatal deficiencies as the Blomgren et al. patent as discussed above. Consequently, claims 48 and 54 would not have been obvious over the cited art for the reasons explained above in connection with claims 47 and 53.

Claims 50 and 56 have been rejected under § 103 over the admitted prior art combined with Freemantle and Abdul-Sada et al. Abdul-Sada et al. discloses ionic liquids that are said to be useful as reaction media and catalysts for processes for producing olefin polymers. Such a process is starkly different from the presently claimed vapor deposition apparatus. An artisan seeking to improve a vapor deposition apparatus would not have been motivated to turn to

used for processes for producing olefin polymers - a completely different process from that of semiconductor processing.

It is respectfully submitted that the present claims are in condition for allowance. Should there be any questions regarding this application, Examiner Alejandro Mulero is invited to contact the undersigned attorney at the telephone number shown below.

Respectfully submitted,

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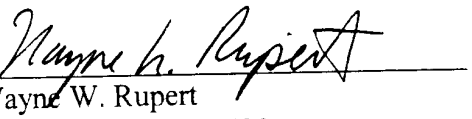
By 
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